UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,195	12/05/2003	King Wai Chan	2003P13577US	2419

7590 05/31/2005

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
FORD, JOHN K	

ART UNIT	PAPER NUMBER
3753	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/729,195	CHAN, KING WAI	
	Examiner	Art Unit	
	John K. Ford	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 3/17/05

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) 1-10, 14 and 17 is/are withdrawn from consideration.

5)☐ Claim(s) ____ is/are allowed.

6)☒ Claim(s) 11-13, 15, 16, 18 and 19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's response of March 17, 2005 has been studied carefully. In it applicant elects method claims 11-19, with traverse (note this election supercedes applicant's previous election of apparatus claims, 1-10, without traverse, by attorney Brennan on February 10, 2005) and further elects Figure 2, also with traverse. Regarding the traverse of the method/apparatus restriction, it is apparent that there are numerous disclosed patently distinct species of apparatus to perform the method (applicant have only admitted that Figures 2 and 3 are obvious variants of one another). Moreover the fact that there are generic claims (1 and 11) to all the species does not mean that the election of species is improper. As understood by applicant, if a generic claim is allowed all properly dependent species claims will be allowed along with that generic claim. It is also noted that applicant's two successive responses (the first electing apparatus claims, without traverse, and the second, method claims, with traverse, are difficult to reconcile, logically speaking). Apparatus claim 1 controls the amount of coolant directed to the heat exchanger as a function of the source coolant flow temperature, whereas claim 11 contains no such limitation, evidence that contradicts counsel's statement that practice of the method of claim 11 would necessarily infringe claim 1. Finally, Marshall et al (USP 3,213,929) illustrates that a distinctly different apparatus comprising a tube within a tube structure can be used to practice the method. The method/apparatus restriction is deemed proper and made final.

Applicant's election of Figure 2 and a statement that "Fig. 3 is an obvious derivation of that shown in Fig. 2" is understood to mean that Figures 2 and 3 are not

patentably distinct from each other and that any prior art applicable to one is equally applicable to the other of the species. To the extent that applicant traverses the species requirement based on the separate identification of Figures 2 and 3, the Examiner will withdraw it, because it is clear that applicant has construed them to be admitted obvious variants of each other and is prepared to accept the consequences of that admission, namely that since the species of Figures 2 and 3 are not patentably distinct, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Of elected method claims 11-19, applicant has identified claims 11, 12, 13, 15, 16, 18 and 19 as readable on the elected species of Figures 2 and 3. Claims 14 and 17 are withdrawn as to non-elected species and claims 1-10 are withdrawn as to a non-elected apparatus.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-13, 15, 16, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

In the elected species of Figure 2, all of the source coolant passes through the heat exchanger at all times, not just a portion of it. To that extent claim 11 appears to be mis-descriptive of the elected species of Figure 2. Claims 12-15 and 18 all

improperly depend from claim 1. For purposes of rejection these claims are assumed to depend from claim 11. In claims 16 and 17, "through" has been misspelled. In claim 19, "for" should probably read - - from - -.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 12 and 18 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Marshall et al (USP 3,213,929).

In Figure 1, all of the fluid flowing into pipe 11 passes through heat exchanger 10 and then to a device 13 to be cooled. The warm return flow in pipe 14 is diverted by a flow control valve 19 at the "T-branch" 15 to the bypass conduit 17 or back into the heat exchanger through line 16. Heat from the used coolant flow is thereby transferred to the source coolant flow without contact between the two flows. Regarding claim 18, "water" is explicitly contemplated in col. 1, line 27.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

> the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall as applied to claim 11 above, and further in view of applicant's admission that there is no patentable distinction between Figures 2 and 3.

As stated above, it is clear that applicant has construed Figures 2 and 3 to be admitted obvious variants of each other and has accepted the consequences of that admission, namely that since the species of Figures 2 and 3 are not patentably distinct, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. That admission is the basis of the rejection here.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall as applied to claim 11 above, and further in view of Abma (USP 4,738,302) or Schneider (USP 4,042,011).

Abma discloses in col. 5, line 54 – col. 6, line 5, incorporated here by reference, the use of three-way valves, each of which performs the diverting function disclosed by valve 19 of Marshall. Similarly, Schneider discloses a three-way valve 48 that performs the same function as valve 19 of Marshall. To have made valve 19 of Marshall a "three-way" valve (which, in all probability, it already is) would have been obvious to one of ordinary skill in the art in view of the teaching of Abma or Schneider. Three-way valves

are advantageously "off-the-shelf" items already available in most plumbing supply sources and a hence inexpensive.

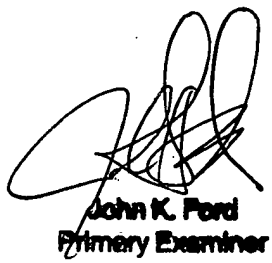
Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall as applied to claim 18 above, and further in view of Allen (USP 4,009,577) or Kilbourn et al. (USP 1,867,975).

The source of cooling water entering pipe 32 of Marshall is not shown. Allen teaches using surface water from rivers and lakes for cooling of industrial processes (Allen, col. 1, lines 9-10), which is a distinct advantage where potable water is expensive and unnecessary (i.e. not consumed by humans). To have connected pipe 32 of Marshall to a source of natural water would have been obvious to advantageously avoid having to use potable cooling water (e.g. in dry climates).

Alternatively, to have used a natural source of cold water as taught by Kilbourn to supply water to pipe 32 of Marshall would have been obvious to one of ordinary skill in the art to advantageously obviate the use of mechanical refrigeration equipment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on 9-5 from M to F.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John K. Ford
Primary Examiner